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ARTICLE

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DYNAMIC RESOURCE ALLOCATION FOR SMART HOSPITAL MANAGEMENT USING REINFORCEMENT LEARNING

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Delivery of health care services is under immense constraint excess 'constraints' as far as - lack of medical when there are too many patients and constraining emphasis factors as well. Management of hospital resource management elements like beds, work force, machines efficiently is crucial in diminishing the risk and enhancing the patients' satisfaction as well as the hospital operations. Reinforcement Learning (RL) is an optimized way to solve utilities involved in healthcare that is characterized by immense amount of data. Specifically, the tasks include optimal patient scheduling, ICU capacity assignment, outbreaks control, and the organization of the work of medical workers. This article also explains advances in reinforcement systems such as Q-learning, Deep Q-networks (DQN), policy gradient that are commonly exploited in healthcare management issues. In conclusion, the article provides an estimate on the possible evolution in the utilization of RL-based decision.